

Notice of Allowability

Application No.

10/023,642

Applicant(s)

KUHL ET AL.

Examiner

John Pezzlo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 5 January 2006.
2. ☒ The allowed claim(s) is/are 1, 6, 8, 9, 14, 16, and 19-39 (renumbered 1-27 respectively).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


JOHN PEZZLO
PRIMARY EXAMINER

DETAILED ACTION

Allowable Subject Matter

Claims 1, 6, 8, 9, 14, 16, and 19-39 are allowable over the prior art of record.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance: Applicants have claimed uniquely distinct features in the instant invention, which are not found in the prior art, either singularly or in combination. Each independent claim identifies the following uniquely distinct features:

1. Regarding claim 1 – A method of mediating cell traffic between asynchronous transmission mode (ATM) network and an adjacent network, each cell in said cell traffic having a set of transmission parameters related to said ATM network and a respective ATM connection for said cell, said method comprising: (i) identifying for said cell an egress queue family by utilizing a first set of parameters from said set of transmission parameters, (ii) associating with said cell one of a predefined number of egress class of service (COS) levels by mapping a second set of parameters from said set of transmission parameters into one of said egress COS levels, (iii) utilizing said egress COS level associated with said cell to select an egress queue member of said egress queue family identified in step (i), said selected egress queue member being associated with said egress COS level associated with said cell in step (ii), and (iv)

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providing said cell to said identified queue member for forwarding to said another network, wherein said first set of parameters comprises a real-time connection indication and a resource reserved indication, wherein said second set of parameters comprises at least an ATM quality of service parameter and a service category parameter, wherein for said second set of parameters, said ATM quality of service parameter comprises a cell loss ratio parameter and a cell delay variation parameter, wherein said egress queue family in step (i) is one of a real time (R-T) queue family, a resources reserved (RR) queue family, and a non-resources reserved (nRR) queue family, and wherein said RR queue family comprises eight RR queue members, each said RR queue member having a minimum bandwidth proportional to a weight assigned to each egress COS Level associated with each said RR queue.

2. Regarding claim 9 – A system for mediating cell traffic between an asynchronous transmission mode (ATM) network and an adjacent network, each cell in said cell traffic having a set of transmission parameters related to said ATM network and a respective ATM connection for said cell, said system comprising: (a) an identifier for utilizing a first set of parameters from said set of transmission parameters to identify an egress queue family for said cell, (b) a translator for translating a second set of parameters from said set of transmission parameters to an egress class of service (COS) level associated with said cell, and (c) a selector for selecting an egress queue member of said egress queue family to forward said cell to said another network, said selected egress queue member being associated with said egress COS level associated with said cell, wherein said first set of parameters comprises a real-time connection indication and a resource reserved indication, wherein said second set of parameters comprises at least an ATM quality of service parameter and a service category parameter, wherein for said second set of

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parameters, said ATM quality of service parameter comprises a cell loss ratio parameter and a cell delay variation parameter, wherein said egress queue family is one of a real-time (R-T) queue family, a resources reserved (RR) queue family, and a non-resources reserved (nRR) queue family, and wherein said RR queue family comprises eight RR queue members, each said RR queue member having a minimum bandwidth proportional to a weight assigned to each egress COS level associated with each said RR queue.

3. Regarding claim 19 – A method of mediating cell traffic between an asynchronous transmission mode (ATM) network and an adjacent network, each cell in said cell traffic having a set of transmission parameters related to a respective ATM connection, said method comprising: (i) identifying for said cell a set of parameters associated with said set of transmission parameters and switching said cell according to said set of parameters, (ii) associating with each parameter of said set of parameters, a class of service (COS) level from a predefined number of class of service (COS) levels, (iii) inserting said cell into a packet adapted for routing on said adjacent network and associating said packet with an egress COS level, according to said set of parameters of said cell, and (iv) utilizing said egress COS level associated with said packet to select an egress queue member of an egress queue family and placing said packet into said egress queue member for transmission along said adjacent network.

4. Regarding claim 28 – A system for mediating cell traffic between an asynchronous transmission mode (ATM) network and an adjacent network, each cell in said cell traffic having a set of transmission parameters related to said ATM network and a respective ATM connection for said cell, said system comprising: (a) an identifier for utilizing a set of parameters associated with said set of transmission parameters, (b) a translator for translating said set of parameters

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from said set of transmission parameters to an egress class of service (COS) level, (c) means for inserting said cell into a packet adapted for routing on said adjacent network and associating said packet with an egress COS level, according to said set of parameters of said cell, and (d) a port service interface for selecting an egress queue member to forward said packet to said adjacent network, said selected egress queue member being associated with said egress COS level associated with said set of parameters of said cell.

5. Regarding claim 39 - A method of mediating multi-protocol label switching (MPLS) packet traffic flows between an MPLS network and an asynchronous transmission mode (ATM) network, each MPLS packet traffic flow having associated therewith a set of transmission parameters, said method comprising: (i) identifying for said MPLS packet traffic flow an ATM egress queue type by utilizing a first set of parameters from said set of transmission parameters, (ii) associating with said MPLS packet traffic flow one of a predefined number of ATM egress class of service (COS) levels by mapping a second set of parameters from said set of transmission parameters into one of said ATM egress COS levels, (iii) utilizing said ATM egress COS level associated with said MPLS packet traffic flow to select an ATM egress queue member of said ATM egress queue type identified in step (i), said selected ATM egress queue member being associated with said ATM egress COS level associated with said MPLS packet traffic flow in step (ii), and, (iv) directing said MPLS packet traffic flow to said identified ATM queue member for forwarding to said ATM network.

The closest prior art, either singularly or in combination, fail to anticipate or render the above limitations obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Claims 1, 6, 8, 9, 14, 16, and 19-39 being allowable, **Prosecution On The Merits Is Closed** in this application.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Cheesman et al. (US 6,680,933 B1) discloses a telecommunications switching and methods for their operation.
2. Roberts (US 6,574,195 B2) discloses a micro-flow management.
3. Xu et al. (US 2003/0048792 A1) discloses a forwarding device for communication networks.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Pezzlo whose telephone number is (571) 272-3090. The examiner can normally be reached on Monday to Friday from 8:30 AM to 4:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C.

or faxed to:

(571) 273-8300

For informal or draft communications, please label "PROPOSED" or "DRAFT"

Hand delivered responses should be brought to:

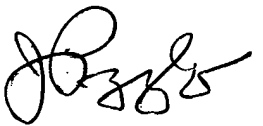
Jefferson Building

500 Dulany Street

Alexandria, VA.

John Pezzlo

19 January 2006



JOHN PEZZLO
PRIMARY EXAMINER